



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,857	07/30/2003	Yasunori Nakamura	030918	6154
23850	7590	02/07/2005	EXAMINER	
ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP 1725 K STREET, NW SUITE 1000 WASHINGTON, DC 20006			CHEUNG, WILLIAM K	
			ART UNIT	PAPER NUMBER
			1713	

DATE MAILED: 02/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/629,857	Applicant(s) NAKAMURA ET AL.	
	Examiner William K Cheung	Art Unit 1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2004.
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-8 and 10-12 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-3,5-8 and 10-12 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. In view of Amendment filed December 21, 2004, claims 4, 9 have been cancelled. Claims 1-3, 5-8, 10-12 are pending.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1713

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
4. Claims 1-3, 5-8, 10-12 stand rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Chatterjee (US 5,922,471) for the reasons adequately set forth from paragraph 4 of non-final office action issued September 23, 2004.

*The invention of claims 1-3, 5-8, 10-12 relates to a **polypropylene-based resin composition** for metallized films, comprising:*

*(A) **100 parts by weight of a propylene random copolymer** produced in the presence of a metallocene catalyst, which as the properties (a-1) to (a-5):*

*(a-1) **propylene unit present at 88 to 99.5% by mol, and ethylene and/or butene structural unit present at 0.5 to 12% by mol,***

*(a-2) **melt flow rate (MFR_A) of 1 to 30g/10 minutes,***

*(a-3) **polydispersity index (PI), determined by the melt viscoelasticity analysis, of 2.4 to 4,***

Art Unit: 1713

(a-4) **solubles** contained at 20°C or lower, determined by cross fractionation chromatography (CFC), at **1.5% by weight or less**, and the solubles having a weight-average molecular weight of **0.1×10^4 to 6.0×10^4** , and

(a-5) **solubles** contained at 40°C or lower, determined by cross fractionation chromatography (CFC), at **4.0% by weight or less**, and the solubles having a weight-average molecular weight of **0.1×10^4 to 8.0×10^4** ,

(B) **0.0 1 to 6 parts** by weight of a **polyethylene** resin having a density of **0.945 to 0.980g/cm^3** , melt index (MI_B) of **1 to 1000g/10 minutes**, and ratio of MI_B to MFR_A , i.e., (MI_B/MFR_A) ratio, of **0.7 to 1000**,

(C) **0.01 to 0.7 parts** by weight of an **antiblocking agent** having an average particle size of **1.0 to $5.0 \mu\text{m}$** and pore volume of **1.7mL/g or less**,

(D) **0.01 to 0.5 parts** by weight of an **antioxidant** having a molecular weight of **500 or more**, and

(E) **0.005 to 0.5 parts** by weight of a **hydrotalcite-based compound**.

Chatterjee (abstract) discloses polypropylene random copolymer resins for metallized film applications. Further, Chatterjee (col. 2, line 21 to col. 4, line 55) clearly teach using applicants' claimed components (antioxidant, hydrotalcite, HDPE, antiblocking agent) (col. 4, Table I and II) in specific ranges. Although Chatterjee does not provide a working example to demonstrate applicants' claimed invention in a single embodiment, however, it would not be difficult to one of ordinary skill in art to obtain the

Art Unit: 1713

invention of claims 1-12 after reading the specific component teachings (antioxidant, hydrotalcite, HDPE, antiblocking agent) in Chatterjee.

Regarding the claimed "polyethylene resin having a density of 0.945 to 0.980g/cm³, melt index (MI_B) of 1 to 1000g/10 minutes, and ratio of MI_B to MFR_A, i.e., (MI_B/MFR_A) ratio, of 0.7 to 1000", applicants must recognize that these recited properties are typical properties of high density polyethylene as recognized by one of ordinary skilled in the polyolefin industries.

In view of the substantially identical composition and intended use disclosed in Chatterjee and the composition and intended use being claimed, the examiner has a reasonable basis to believe that the claimed "solubles contained at 20 °C or lower, determined by cross fractionation chromatography (CFC), at 1.5% by weight or less, and the solubles having a weight-average molecular weight of 0.1x10⁴ to 6.0x10⁴, and (a-5) solubles contained at 40°C or lower, determined by cross fractionation chromatography (CFC), at 4.0% by weight or less, the solubles having a weight-average molecular weight of 0.1x10⁴ to 8.0x10⁴", melting point characteristics, the mathematical relationship of claim 6 are inherently possessed in Chatterjee. Since the PTO does not have proper means to conduct experiments, the burden of proof is now shifted to applicants to show otherwise. In re Best, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977); In re Fitzgerald, 205 USPQ 594 (CCPA 1980).

Art Unit: 1713

Applicant's arguments filed December 21, 2004 have been fully considered but they are not persuasive. Applicants argue that the polypropylene-based resin composition Chatterjee is likely prepared by the convention polymerization process using titanium based catalyst system. However, such teachings in Chatterjee (col. 2, line 3) only suggest that the propylene based resin can be prepared using a titanium-based catalyst, but the teachings in Chatterjee are not limited to resins prepared with a titanium-based catalyst.

Regarding applicants' argument that polydispersity of polypropylene resins prepared by titanium-based catalysts are different as compared to the similar resins prepared using a metallocene catalyst as claimed, because Chatterjee (col. 2, line 14-20) discloses the use of post polymerization visbreaking process on the prepared resins, the polydispersity difference between a polypropylene resin prepared with a titanium-based catalyst and a metallocene catalyst diminishes and become unpredictable.

Regarding the newly added "metallocene" limitation in claim 1, applicants must recognize that "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art,

Art Unit: 1713

the claim is unpatentable even though the prior product was made by a different process.” In re Thorpe, 777F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985)

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William K Cheung whose telephone number is (571)

Art Unit: 1713

272-1097. The examiner can normally be reached on Monday-Friday 9:00AM to 2:00PM; 4:00PM to 8:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David WU can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



William K. Cheung

Primary Examiner

February 2, 2005

WILLIAM K. CHEUNG
PRIMARY EXAMINER